CLAIMS

What is claimed is:

1. An evacuation apparatus for removing gaseous byproducts or noxious vapors comprising:

a head operatively coupled to a vacuum and a fluid source, said head substantially defining a plenum, said plenum having an inner periphery defining a generally central opening, said plenum having a generally open facing adjacent to the inner periphery; and

a plenum support for preventing the plenum from collapsing when a low pressure is established therein.

2. The evacuation apparatus according to claim 1, wherein said head is operatively coupled to said fluid source with at least one nozzle, and operatively coupled to said vacuum with at least one nozzle, wherein said at least one nozzle operatively coupled to said fluid source and said at least one nozzle operatively coupled to said vacuum are generally opposed.

3. The evacuation apparatus according to claim 2, further comprising at least a plurality of manifolds carried by said plenum, wherein said manifolds cover a portion of said inner periphery adjacent to said one nozzle operatively coupled to said fluid source.

4. The evacuation apparatus according to claim 3, wherein said manifolds are solid.

5. The evacuation apparatus according to claim 3, wherein said manifolds are perforated.

6. The evacuation apparatus according to claim 2, further comprising at least one baffle located in said plenum between said nozzle operatively coupled to said fluid source and said central opening.

7. The evacuation apparatus according to claim 1, wherein said fluid source supplies generally particle-free air to said head.

29

8. The evacuation apparatus according to claim 1, wherein a generally unidirectional, laminar airflow runs through said central opening in the general direction of said vacuum.

9. The evacuation apparatus according to claim 1, further comprising a piece of fabric-like sheet material, said apparatus operably coupled to said piece of material.

10. The evacuation apparatus according to claim 1, wherein said plenum has a bottom wall, wherein said bottom wall of said plenum includes an adhesive layer for adhesive attachment of said head around a surgical site.

11. The evacuation apparatus according to claim 1, wherein said plenum is constructed of a generally non-porous material.

12. The evacuation apparatus according to claim 1, wherein said plenum support is constructed of a generally porous material.

13. The evacuation apparatus according to claim 1, wherein said fluid source supplies an inert gas through said head.

14. A medical appliance comprising a working head for being positioned adjacent to a surgical site and operably coupled to a vacuum source and a source of clean air, said working head including at least one inlet connectable to the source of clean air and at least one outlet connected to the vacuum source, whereby actuation of at least the vacuum source produces an air flow of clean air adjacent to the surgical site.

15. The medical appliance according to claim 14, wherein said air flow is laminar.

16. The medical appliance according to claim 14, wherein said working head defines a plenum, said plenum having at least one central opening, wherein said plenum has a generally open facing adjacent to an inner periphery of said at least one central opening of said plenum.

17. The medical appliance according to claim 16 further comprising a plurality of manifolds carried by said plenum, wherein said manifolds cover a portion of said inner periphery adjacent to said at least one inlet.

18. The medical appliance according to claim 16, further comprising at least one baffle located in said plenum between said at least one inlet and said at least one central opening.

19. The medical appliance according to claim 14, wherein said working head substantially contains air flow when actuation of the vacuum source occurs.

20. The medical appliance according to claim 14, wherein said at least one inlet and said at least one outlet are on generally opposite sides of said working head.

21. A method for removing fumes from a workspace, comprising;

providing the workspace;

providing a head, said head substantially defining a plenum, said plenum having an inner periphery defining a generally central opening, said plenum having a generally open facing adjacent to the inner periphery, said plenum having a plenum support for preventing the plenum from collapsing when a low pressure is established therein;

providing a vacuum source;

coupling said head and said vacuum source; and

actuating said vacuum source, whereby fumes are removed from the workspace.

22. The method of claim 21, further comprising providing a fluid source, and operably coupling said head and said fluid source at a fluid source connection point.

23. The method of claim 22, further comprising actuating said fluid source to provide a flow of fluid to said head.

24. The method according to claim 23, said head further comprising a plurality of manifolds carried by said plenum, wherein said manifolds cover a portion of said inner periphery adjacent to said fluid source connection point.

25. The method according to claim 23, said head further comprising at least one baffle located in said plenum between said fluid source connection point and said central opening.

26. The method of claim 23, wherein at least a portion of said fluid comprisess an inert gas.

27. The method of claim 23, wherein said fluid is ultra-clean air.